WHAT IS CLAIMED IS:

1. A slurry for chemical mechanical polishing, which contains polishing particles comprising colloidal particles whose primary particles have a diameter ranging from 5 to 30 nm, wherein the degree of association of the primary particles is 5 or less.

2. The slurry for chemical mechanical polishing according to claim 1, wherein said colloidal particles are colloidal silica particles.

3. The slurry for chemical mechanical polishing according to claim 1, wherein a particle diameter of secondary particles to be formed through the association of said colloidal particles is 100 nm or less.

4. The slurry for chemical mechanical polishing according to claim 1, wherein said polishing particles are incorporated in said slurry at a ratio of 0.5 to 5% by weight.

5. The slurry for chemical mechanical polishing according to claim 1, which further contains an oxidizing agent and an oxidation inhibitor.

6. The slurry for chemical mechanical polishing according to claim 5, wherein said oxidation inhibitor is selected from the group consisting of quinaldinic acid, quinolinic acid and glycine.

7. The slurry for chemical mechanical polishing according to claim 5, which further contains a

surfactant.

8. The slurry for chemical mechanical polishing according to claim 7, wherein said surfactant is dodecyl benzene sulfonate.

9. A slurry for chemical mechanical polishing, which contains polishing particles comprising first colloidal particles whose primary particles have a diameter ranging from 5 to 20 nm, and second colloidal particles which are made of the same material as that of the first colloidal particles and whose primary particles have a diameter larger than 20 nm, wherein the weight ratio of the first colloidal particles is in the range of 0.6 to 0.9 based on a total weight of said first and second colloidal particles.

10. The slurry for chemical mechanical polishing according to claim 9, wherein said first and second colloidal particles are both colloidal silica particles.

11. The slurry for chemical mechanical polishing according to claim 9, which further contains third particles which are formed of a different material from that of the first and second colloidal particles.

12. The slurry for chemical mechanical polishing according to claim 11, wherein said third particles are colloidal alumina particles.

13. The slurry for chemical mechanical polishing according to claim 9, wherein said polishing particles

are incorporated in said slurry at a ratio of 0.5 to 5% by weight.

14. The slurry for chemical mechanical polishing according to claim 9, which further contains an oxidizing agent and an oxidation inhibitor.

15. The slurry for chemical mechanical polishing according to claim 14, wherein said oxidation inhibitor is selected from the group consisting of quinaldinic acid, quinolinic acid and glycine.

16. The slurry for chemical mechanical polishing according to claim 14, which further contains a surfactant.

17. The slurry for chemical mechanical polishing according to claim 16, wherein said surfactant is dodecyl benzene sulfonate.

18. A method of manufacturing a semiconductor device, which comprises:

forming a wiring groove on a surface of an insulating film formed above a semiconductor substrate;

depositing a conductive material film on a surface of said insulating film including an inner surface of said wiring groove; and

subjecting said conductive material film to a chemical mechanical polishing by making use of either a slurry for chemical mechanical polishing, which contains polishing particles comprising colloidal particles whose primary particles have a diameter

ranging from 5 to 30 nm, wherein the degree of association of the primary particles is 5 or less, or a slurry for chemical mechanical polishing, which contains polishing particles comprising first colloidal particles whose primary particles have a diameter ranging from 5 to 20 nm, and second colloidal particles which are made of the same material as that of the first colloidal particles and whose primary particles have a diameter larger than 20 nm, wherein the weight ratio of the first colloidal particles is in the range of 0.6 to 0.9 based on a total weight of said first and second colloidal particles to remove said conductive material film excluding a conductive material film portion which is buried in said wiring groove.

19. The method of manufacturing a semiconductor device according to claim 18, wherein said conductive material film is a wiring material film.

20. The method of manufacturing a semiconductor device according to claim 19, wherein said wiring material film is a copper film.

21. The method of manufacturing a semiconductor device according to claim 18, wherein said conductive material film is a laminate film composed of two or more layers comprising a conductive barrier film made of at least one kind of materials selected from the group consisting of TiN, Ti, Nb, W, WN, TaN, TaSiN, Ta, V, Mo, Zr and ZrN, and a wiring material film laminated

on said barrier film, said wiring material film being subjected to said chemical mechanical polishing by making use of the slurry for chemical mechanical polishing.

22. The method of manufacturing a semiconductor device according to claim 18, wherein said conductive material film is a laminate film composed of two or more layers comprising a conductive barrier film made of at least one kind of materials selected from the group consisting of TiN, Ti, Nb, W, WN, TaN, TaSiN, Ta, V, Mo, Zr and ZrN, and a wiring material film and laminated on said barrier film, said laminate film being subjected to said chemical mechanical polishing by making use of the slurry for chemical mechanical polishing, which includes third particles formed of a material different from those of the first and second colloidal particles, to remove said conductive material film excluding a conductive material film portion which is buried in said wiring groove.

23. A method of manufacturing a semiconductor device, which comprises:

forming a wiring groove on a surface of an insulating film formed above a semiconductor substrate;

depositing a conductive barrier film on a surface of said insulating film including an inner surface of said wiring groove;

depositing a wiring material film on said

conductive barrier film to fill said wiring groove with said wiring material film;

subjecting said wiring material film to a chemical mechanical polishing to remove said wiring material film excluding a wiring material film portion which is buried in said wiring groove, said chemical mechanical polishing taking place, with the conductive barrier film on said insulating film being employed as a stopper, except for a conductive barrier film portion located inside said wiring groove; and

subjecting a conductive barrier film portion which is located on said insulating film excluding said wiring groove to a chemical mechanical polishing by making use of either a slurry for chemical mechanical polishing, which contains polishing particles comprising colloidal particles whose primary particles have a diameter ranging from 5 to 30 nm, wherein the degree of association of the primary particles is 5 or less, or a slurry for chemical mechanical polishing, which contains polishing particles comprising first colloidal particles whose primary particles have a diameter ranging from 5 to 20 nm, and second colloidal particles which are made of the same material as that of the first colloidal particles and whose primary particles have a diameter larger than 20 nm, wherein the weight ratio of the first colloidal particles is in the range of 0.6 to 0.9 based on a total weight of said

first and second colloidal particles.

24. The method of manufacturing a semiconductor device according to claim 23, wherein said insulating film is a porous film or an organic film, each exhibiting a lower dielectric constant as compared with that of SiO_2.

25. The method of manufacturing a semiconductor device according to claim 23, wherein said conductive barrier film is composed of one or more layers made of a material selected from the group consisting of TiN, Ti, Nb, W, WN, TaN, TaSiN, Ta, V, Mo, Zr and ZrN.